

Listing of Claims

1. (Previously Presented) A method of generating a synthetic key frame of video text, the method implemented by code tangibly embodied within a computer-readable medium and comprising:

extracting a plurality of text areas from a video stream;

calculating importance measures according to weights for each of the extracted text areas;

selecting a number of text areas to be synthesized based upon the importance measures in the order of higher importance; and

synthesizing the number of text areas into a synthetic key frame.

2. (Currently Amended) The method of generating a synthetic key frame of video text according to claim 1, wherein the text areas are included in original content of the video in the video stream and are extracted according to certain intervals of the video stream, the text areas in the original content of the video being different from closed-captioned text or text generated by a speech recognition engine.

3. (Previously Presented) The method of generating a synthetic key frame of video text according to claim 2, wherein a synthetic key frame is generated for each of the certain intervals of the video stream.

4. (Previously Presented) The method of generating a synthetic key frame of video text according to claim 2, wherein the certain intervals of the video stream are discriminated by scenes as logical units of a video.

5. (Previously Presented) The method of generating a synthetic key frame of video text according to claim 2, wherein the certain intervals of the video stream are discriminated by shots as physical units of a video.

6. (Previously Presented) The method of generating a synthetic key frame of video text according to claim 1, wherein the weights are determined in proportion to a size of the text area, a mean text size of the text area and a display duration time of a text.

7. (Previously Presented) The method of generating a synthetic key frame of video text according to claim 6, wherein the mean text size in the text area is determined by using a density and size of a histogram for the text area.

8. (Original) The method of generating a synthetic key frame of video text according to claim 6, wherein the display duration time of the text is determined by considering whether a previously extracted text area is identical to a currently extracted text area.

9. (Previously Presented) The method of generating a synthetic key frame of video text according to claim 6, wherein the weight increases as the size of the text area, the mean text size the text area or the display duration time of the text increases.

10. (Original) The method of generating a synthetic key frame of video text according to claim 1, wherein the number of the text areas to be synthesized is selected from the plurality of text areas in the order of importance.

11. (Original) The method of generating a synthetic key frame of video text according to claim 10, wherein the number the text areas to be synthesized is determined according to browser size.

12. (Previously Presented) The method of generating a synthetic key frame of video text according to claim 10, wherein sizes of the text areas to be synthesized are determined according to browser size.

13. (Previously Presented) A method of generating a synthetic key frame of video text, the method implemented by code tangibly embodied within a computer-readable medium and comprising:

determining weights for a plurality of text areas based upon weight determining factors;

calculating importance measures of the text areas by applying the weights according to a certain rule;

selecting a number of text areas to be synthesized based upon the importance measures in the order of higher importance; and

synthesizing the text areas into a synthetic key frame.

14. (Previously Presented) The method of generating a synthetic key frame of video text according to claim 13, wherein the weight determining factors include a size of the text area, a mean text size of the text area and a display duration time of a text.

15. (Original) The method of generating a synthetic key frame of video text according to claim 13, wherein the certain rule is addition of values obtained by multiplying the weight determining factors with the corresponding weights.

16. (Original) The method of generating a synthetic key frame of video text according to claim 13, wherein the number of the text areas to be synthesized is selected from the plurality of text areas in the order of importance.

17. (Previously Presented) A method of calculating an importance measure for generating a synthetic key frame of video text, the method implemented by code tangibly embodied within a computer-readable medium and comprising:

determining sizes of weight determining factors of text areas extracted from a video stream;

determining weights for the extracted text areas based upon the sizes of the weight determining factors; and

adding values obtained by multiplying the weight determining factors with corresponding weights to calculate an importance measure for the extracted text areas.

18. (Previously Presented) The method of calculating an importance measure for generating a synthetic key frame of video text according to claim 17, wherein the weight determining factors include the size of a text area, a mean text size of a text area and a display duration time of a text.

19. (Previously Presented) The method of calculating an importance measure for generating a synthetic key frame of video text according to claim 18, wherein the mean text size in the text area is determined by densities and sizes of histograms about the text area.

20. (Previously Presented) The method of calculating an importance measure for generating a synthetic key frame of video text according to claim 18, wherein the display duration time of the text is determined by considering whether a previously extracted text area is identical to a currently extracted text area.

21. (Previously Presented) The method of claim 1, wherein the synthetic key frame is used by a browser to search for multimedia information.

22. (Previously Presented) The method of claim 13, wherein the synthetic key frame is used by a browser to search for multimedia information.

23. (Previously Presented) The method of claim 17, wherein the synthetic key frame is used by a browser to search for multimedia information.